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8 North Parade Buildings
Bath BA1 1NS
T: 01225 326 895
W: www.quidos.co.uk
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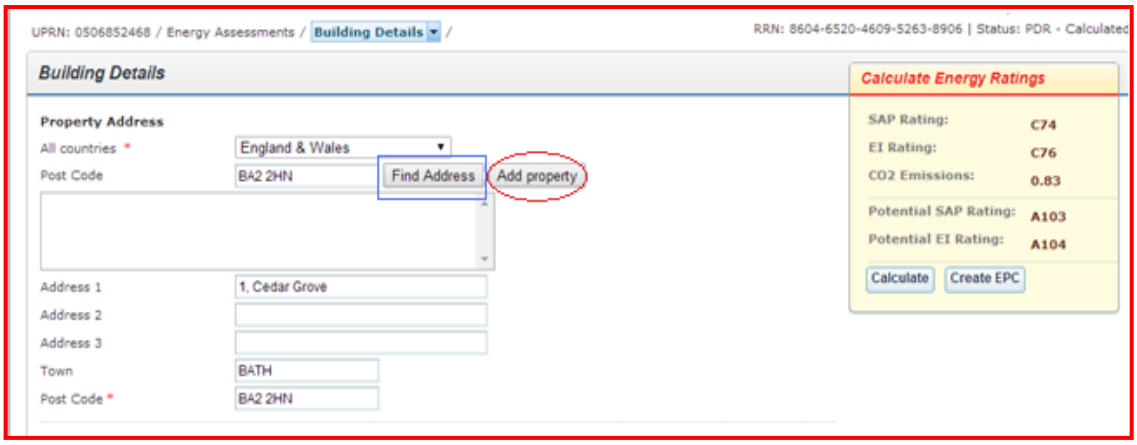
A guide to iQ Energy & lodging an EPC via the Quidos RdSAP software

Building Details

Address



After entering the post code in the 2nd box, an address can be searched for the using the 'Find address' button. Once the correct address is selected from the white box, the software will automatically fill in the rest of the address, as appropriate.

If the property is not listed, it is not registered with Landmark. To register the address, press the 'Add property' button which will bring up a separate box in which the new address details may be entered.

N.B. Once this data has been entered, the assessor should receive a confirmation email from Landmark, and then another email confirming the property registration within the next 48 hours.

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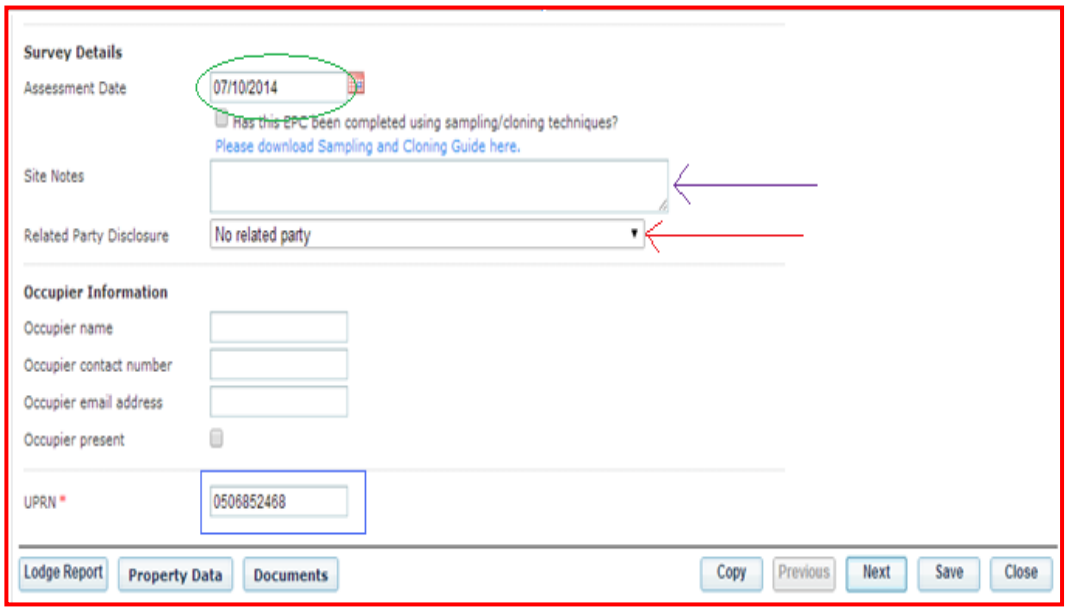
Assessment



The assessment date must be entered correctly as the date when you visited the property.

N.B If two EPCs are lodged on the same property then only the EPC with the newest assessment date may be viewed in PDF format. The older EPC can be found on the EPC register.

Any additional observations to the written site notes may be added here.

The assessor must not have any personal connection to the properties occupant.

The UPRN may be found here and is specific to each property but not each EPC. The UPRN should not be changed from what is self populated from Landmark.

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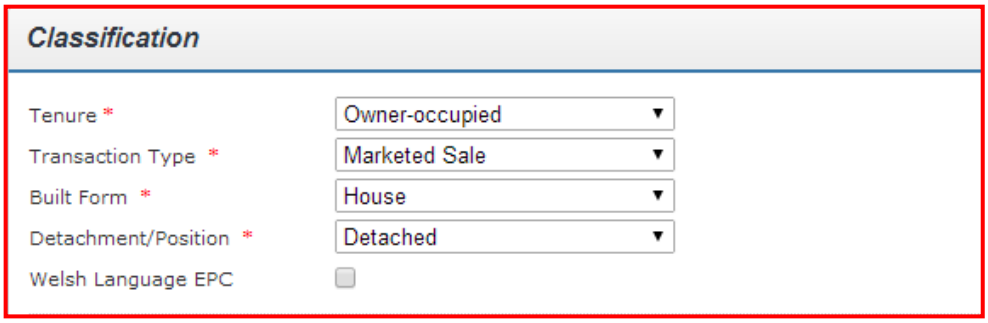
Progressing

N.B. Once each page is completed, before advancing to the next section via the next button, use the save button to retain the data entered.

Classification

Type of property



Tenure

- Owner-occupied – Property is inhabited by the owner.
- Rented (social) – Property owned or managed by local authorities or registered *social* landlords inhabited by other party.
- Rented (private) – Property inhabited by other than the owner.

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Transaction Type

Marketed Sale: If the purpose of the EPC is because the house is being sold.

Non-marketed sale: If the purpose of the EPC is because the property is being sold privately.

Assessment for Green Deal: If the purpose of the EPC is to assess for Green Deal.

Following Green Deal: If the purpose of the EPC is to mark the changes to a property once the Green Deal improvements have been implemented.

FiT Application: If the purpose of the EPC is too asses the property for a Feed in Tariff.

RHI Application: If the purpose of the EPC is too asses the property for Renewable Heat Incentive.

ECO Assessment: If the purpose of the EPC is too asses the property for the Energy Companies Obligation.

None of the above: Any other transaction type not already mentioned.

Built Form

House Dwelling: With more than one storey, a complete heat loss ground floor, and a completely exposed roof. (This can be a property with a ground floor and roof rooms if it is commonly described as a house rather than a bungalow.)

Bungalow Dwelling: That is similar to a house but only has one storey, with or without a room in the roof.

Flat Dwelling: Without a heat loss floor or heat loss roof.

Maisonette: Indistinguishable from a flat, it is treated the same as a flat during the RdSAP calculation.

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Park Home: Pre-fabricated dwelling of modular lightweight construction without its own foundations, can be mobile.

Detachment/Position

Detached

Have no party walls, are exposed on all four sides.

Semi-detached

Share one side with a neighbouring property, leaving three exposed sides.

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End of terrace

Last house in a terraced row. Have three exposed walls but end wall tends not to have windows.

Mid Terrace

Have neighbouring properties on either side, are only exposed at the front and the back.

Enclosed mid terrace

Have only one exposed wall at the front due to neighbouring properties either side of it and another terrace behind it.

Enclosed end terrace

Have two exposed walls at the front and the side. Is the last house in a terraced row and has another terrace behind it.

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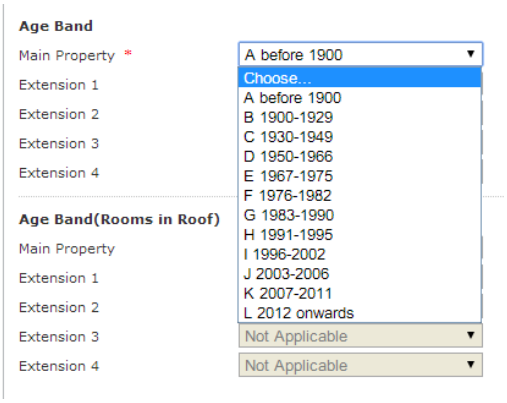
Age of Property



This is a very important, but often difficult, piece of information to gather. It can be obtained in a number of ways:

- Ask the occupants/agents, although you should check this yourself as well against any of the next points.
- Contact the local authority.
- Documentary evidence (local maps etc)
- Modern houses have specification clues, e.g. 1990 building regulations introduced extract fans bathrooms and trickle vents to windows. Be wary as windows may have been replaced.

Pre 1900 – Evidence for:

- Use of local materials. E.g. stone, stone tiles or slates.
- Close inspection reveals the use of brickwork on later houses, often for chimneys, which will have been made locally and vary in size.
- Original windows would have been in metal casement or sliding sash windows, with small planes of glass, frequently in leaded lights.
- Narrow streets as there were few cars and so parking was not a big consideration.
- Solid brick walls of these houses are often rendered.
- In terraces, rear may be accessed through shared alley.

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1900-1920 – Evidence for:

- Solid front door with fanlight above.
- Decorative supports for window sills.
- Decorative brickwork over windows.
- Tiled floors to porches and hallways.
- 9” thick walls
- Decorated and ornamented gable ends
- Use of glazed doors more common.

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1920's – Evidence for:

- Spacious detached, semi detached and terraced houses.
- Extremely spacious plots are laid out as estates with linear hedgerows.
- Often have south facing gardens.

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1930's – Evidence for:

- Commonly used bay windows with horizontal banding in the steel frames, often tile hung faces.
- Cavity brick walls were more commonly used (1936 Model Bye Laws).
- Hipped roofs, of expansive areas, with short ridges and tall chimneys.
- Suburbia started to be created, giving ribbon development on approach roads to towns and cities.
- Cars became common so often accommodated in a separate plot (garage etc).
- Porch with half round opening to the front door, set slightly back.
- Decorative glazing in exterior door panels.
- Roofs extending out over bay windows, with decorative timber or brickwork above glazing.

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1940's – Evidence for:

Nearly all system built and prefabricated.

1950's – Evidence for:

- Flat roofed porches supported on steel posts.
- Plain brick walls, as a result of mass production of bricks.
- Metal casement windows, due to timber shortage.
- Concrete roof tiles.
- Common appearance of bungalows for the first time.
- Estates where there are no clearly defined boundaries, i.e. no enclosed front gardens.

1960's – Evidence for:

- Chalet or dormer bungalows with rooms in the roof.
- The provision of integral parking
- Open plan living and dining areas.
- Introduction of blocks of flats of 3 or more storeys.

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1970s – Evidence for:

- Three storey houses
- Further increase in density.
- Use of high fences and walls enclosing private space.
- Much more use of design detail.
- More parking off plot and the appearance of “car port”.
- Arrival of gas negates chimneys, but brings about need for ridge vents for loft ventilation.
- Large windows reflect the early introduction of double glazing and “Velux” roof lights start to appear.
- Reduction in road widths and introduction of “cluster housing”.

1980’s – Evidence for:

-Housing tightly packed in cul-de-sacs.
-Great variety of house styles and designs adjacent to one another.
- Large windows are now the norm.
-Larger houses may be equipped with chimneys, as flame effect fires come into use.

1990s – Evidence for:

-In the modern period date of construction is most likely already know.
-Trickle vents to windows
-Extractor fans to kitchens and bathrooms.

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Post 2002 – Evidence for:

-For the vast majority of post 2002 properties the date is known.

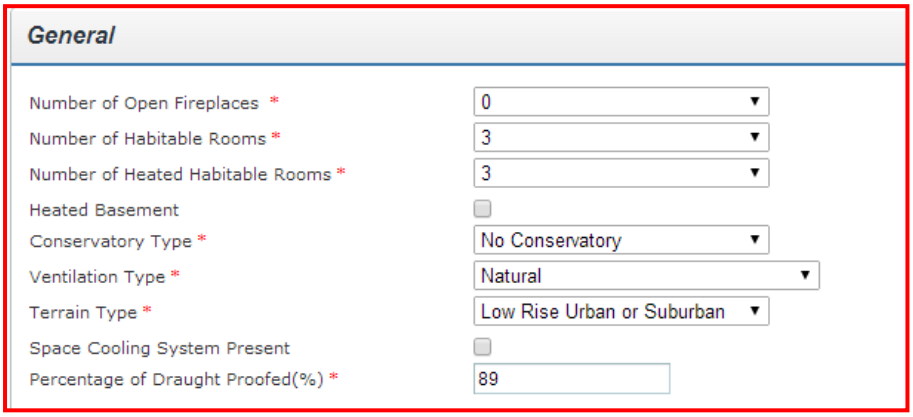
Extensions

This does not necessarily mean a part of the building added at a later date. It is in fact any occupied part of the building that is thermally different from the rest. This could be due to a difference in building standard, roof style, or different wall construction.

Although, it is often the case that an extension has been built at a different time, or has had some insulation added.

Extensions can be used to divide the house into easily manageable "chunks". This helps get past some of the limitations in the RdSAP calculation. For instance, if two alternative walls are present these cannot be entered on to one main property but an extension may be created to accommodate this.

General



Number of Open Fireplaces – Please see convention 9.01

Number of Habitable Rooms – Please see convention 2.04

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Conservatory Type – A conservatory is a structure with at least three quarters of the roof and at least half the external walls glazed. They are classed as separated only if they are partitioned from the main dwelling by external quality doors. In this case the dimensions of the external wall of the house should be measured as it the conservatory wasn't there.

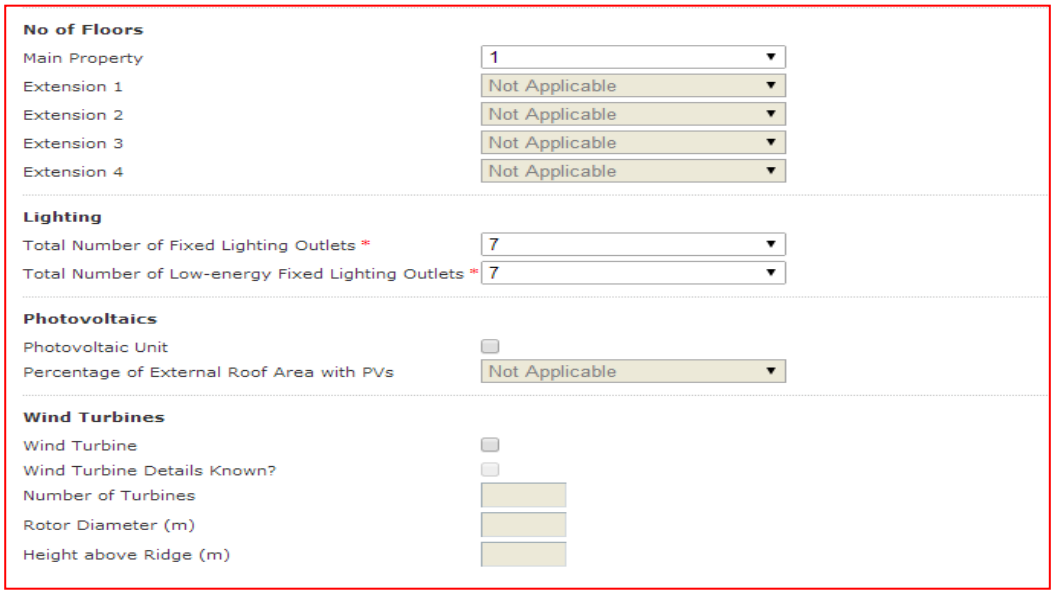
A non-separated conservatory has only an internal quality door separation or other opening leading to the house. It is then counted as a habitable room (con 2.04). This is included in dimension measurements.

Ventilation Type:

- Natural – No fan assisted ventilation, excluding local extraction, e.g bathroom or kitchen extractors.
- Mechanical, Balanced – A balanced ventilation system uses a supply fan to introduce the same volume of fresh outdoor air that is being simultaneously removed from the house by an exhaust fan.
- Mechanical, Extract only – Only removes air and doesn't replace it.

Space Cooling System present: Such as an air conditioning unit cooling part of or all of the dwelling.

Percentage of draught proof: Calculated from the windows and doors only. If a window has two opening panes within its frame, the opening window count for that window is 2.



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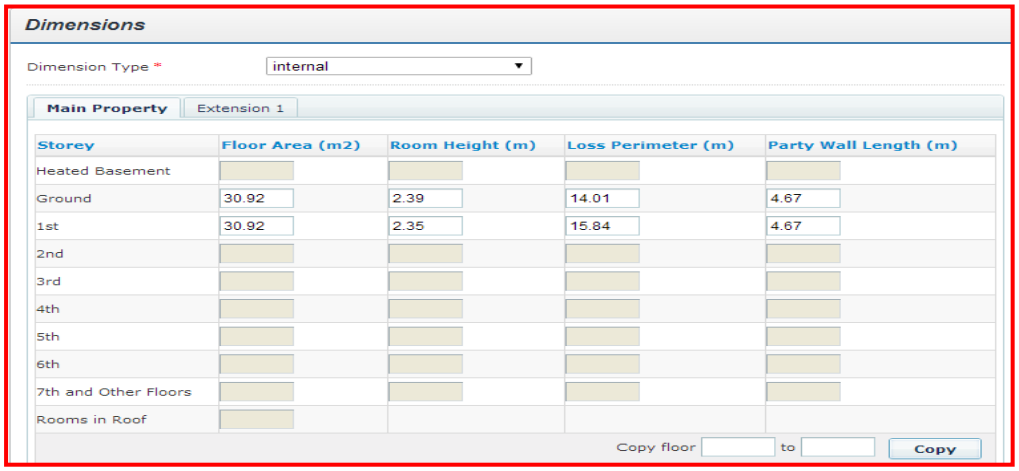
Lighting – Please see convention 7.01

Photovoltaic – Please see convention 9.05

Wind Turbine – Please see convention 9.07

Dimensions



Measurements required are the floor area, exposed perimeter and room height on each storey. The exposed perimeter includes the wall between a dwelling and an unheated garage or a separated conservatory. In the case of flats or maisonettes it includes the wall between the dwelling and an unheated corridor.

N.B. When entering the Heat Loss Perimeter (HLP) into the software it cannot be entered as zero for any storey. If it is in fact zero, simply put it in as 0.5 and minus 0.5 from the floor area.

Never mix external or internal dimensions in a single survey. Indicate on the data entry form which dimensions have been used.

For a basement please see convention 2.18.

No floor depth is required when measuring room height. Roof height is not required for a room in the roof.

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Heat Loss Perimeter (HLP)

This is calculated for each floor of the dwelling and any extension(s) present. The assessor can use external or internal measurements – based upon accessibility.

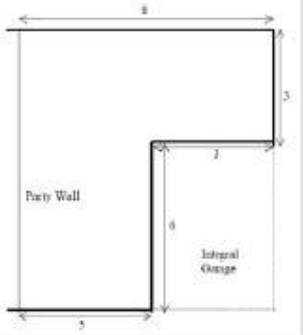
Flats, room height, and room in roof floor area are all measured internally. No HLP is required for a room in the roof.

When an integral or attached garage (or any external construction) adjoins the external wall of the dwelling, the perimeter of the adjacent house is counted as part of the HLP.

Example 1

example one

two storey house with integral garage



Ground floor area is
(8 x 3) + (6 x 5) = 54 m²

First floor area is
(8 x 9) = 72 m²

Ground floor heat loss perimeter is 8 + 3 + 3 + 6 + 5 = 25 m

First floor heat loss perimeter is 8 + 9 + 8 = 25 m

Property dimensions

	Main			Extension 1			Extension 2		
Floor	Floor Area	Room Height (m)	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter
Room In Roof		N/A	N/A		N/A	N/A		N/A	N/A
+5									
+4									
+3									
+2									
+1	72	2.4	25						
Lowest Occupied Floor	54	2.4	25						

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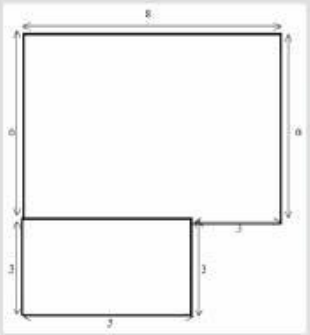
Example 2

example two

two storey detached house with single storey extension



Ground floor area is
8 x 6 = 48 m²
Extension floor area is
5 x 3 = 15 m²

House ground floor heat loss perimeter is
6 + 8 + 6 + 3 = 23 m
House first floor heat loss perimeter is
8 + 6 + 8 + 6 = 28m

(note: this is 5m longer than the ground floor, i.e. the length of wall between the house and ground floor extension)

Extension exposed perimeter is
3 + 5 + 3 = 11 m

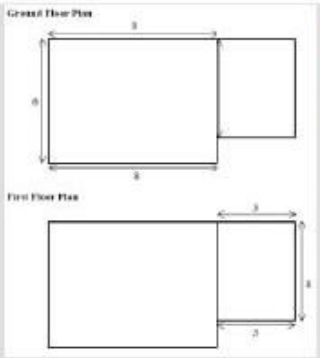
Property dimensions

	Main			Extension 1			Extension 2		
Floor	Floor Area	Room Height (m)	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter
Room In Roof		N/A	N/A		N/A	N/A		N/A	N/A
+5									
+4									
+3									
+2									
+1	48	2.3	28						
Lowest Occupied Floor	48	2.38	23	15	2.35	11			

Example 3

example three

two storey detached house with extension over garage



House ground floor heat loss perimeter is
6 + 8 + 6 + 8 = 28 m

House 1st floor heat loss perimeter is
6 + 8 + 8 + 2 – 24 m

(note: this is 4m shorter than the ground floor, i.e. the length of wall between the house and extension - not a heat loss wall)

Extension heat loss perimeter is
3 + 4 + 3 = 10 m

property dimensions

	Main			Extension 1			Extension 2		
Floor	Floor Area	Room Height (m)	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter	Floor Area	Room Height	Heat Loss Perimeter
Room In Roof		N/A	N/A		N/A	N/A		N/A	N/A
+5									
+4									
+3									
+2									
+1	48	2.35	24	12	2.35	10			
Lowest Occupied Floor	48	2.4	28						

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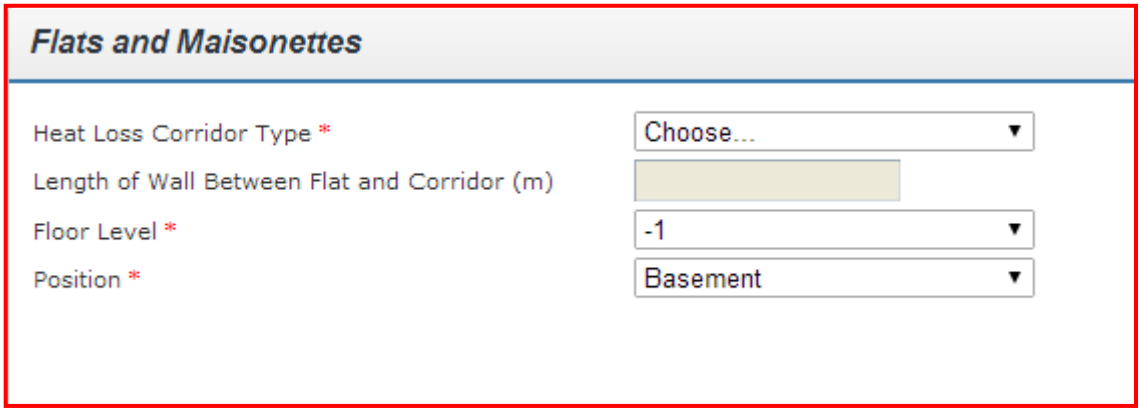
Party Wall

Party Wall length needs to be measured and entered for all floors of the dwelling. A party wall is a wall which separates the dwelling from another dwelling, a heated corridor to a flat or an adjoining commercial property. It does not include walls separating building parts within the same dwelling.

Internal dimensions are measured from inner face to inner face. Cumulative room dimensions must include thickness of internal walls.

Flats and Maisonettes



Heat Loss Corridor Type

Flats are often separated from common areas by corridors, lobbies and stairwells. The survey refers to all of these as “corridors”. These corridors will affect the heat loss from the flat, determined by whether they are heated or not. The options are as follows:

- No corridor
- Unheated corridor
- Heated corridor

If the corridor is unheated then your must enter the length of the wall that is sheltered by the corridor. This length will also be included in the HLP.

The flat level and position must then be entered.

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Walls

Walls

Main Property

Construction *	Cavity Wall
Insulation *	as built
Insulation Thickness(mm) *	Choose...
Wall Thickness Measured?	☑
Wall Thickness(mm) *	320
U-value Known?	☐
U-value (W/m²K)	
Dry-lining?	☐
Party wall construction	unable to determine
Alternative Wall Present?	☐

Construction

Stone walls: Commonly found in older, rural properties

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Granite/Whinstone.

Limestone/Sandstone.

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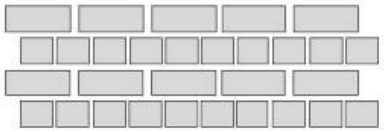
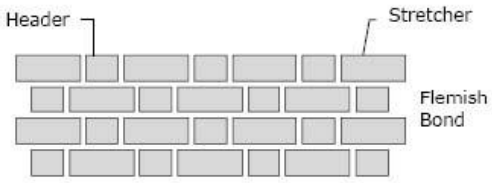
Solid Brick

Two bricks thick with no cavity in the middle. Identified from the brick pattern displayed on outer face. The side face of the brick is known as the “stretcher”, and the end face as the “header”. The way the bricks are laid is called the “bond”. The most common “bonds are:





Solid brick walls may also be identified by their thickness which can be measured at door or window openings. Single skin walls of 4”, 9” and 12” thick brick walls should be entered as solid brick. If solid block is identified rather than brick, the wall should still be entered as “solid brick”.

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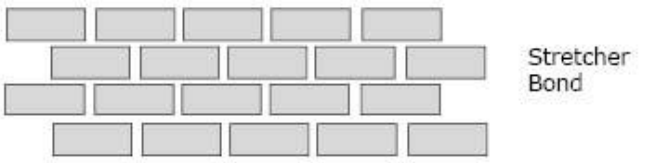
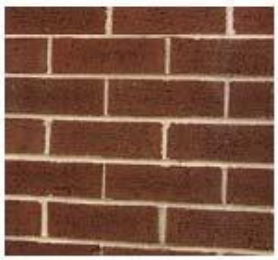
Cavity walls

These consist of two leaves of brick or block work with a gap between them. The outer and inner leaves are joined by wall ties which add stability and keep them parallel. These walls are most easily identified by the observation of a brick bond known as a stretcher bond.





Timber Framed – Old

Commonly known as “Black and White”. These should be immediately obvious from a visual inspection.

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Timber Framed – Modern

These are often finished with a brick outer skin or with a render, so can be difficult to identify. The inner leaf is made up of a timber frame with insulation and a vapour barrier finished with internal plaster board.

Often similar thickness to cavity wall construction. Can be identified through light tapping producing a hollow sound. To distinguish between timber and dry-lined masonry, which also sounds hollow, continue tapping to detect solid slabs of plaster stuck to plaster board that denote dry-lined masonry as opposed to board fixed to timber studs.

The best mode of identification is if access can be gained to the loft space where the frame, plasterboard or other sheathing material in the gable end will be obvious.

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Cob

Local building material, an organic aggregate of sand, clay and water. Mostly old houses that are often thatched due to their age or thatched/grass roof because they have been built as sustainable modern houses.

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System built

Any property of non-traditional construction is accounted for under this heading. Prefabricated concrete panel construction is one type of System Build. In essence System Build is a wall type that cannot be described by the other option available.

Park home wall

Any wall under the category of a park wall.

Wall insulation

For unknown and as built wall insulation please see convention 3.03.

Filled Cavity

This is not to be confused with a modern house insulated when built; it refers instead to a retro-filled wall cavity.
Typically 25mm holes are drilled through the mortar joints and blown fibre or other material is injected to fill in the cavity. Cavity fill can be identified by looking through air bricks; checking in the loft; asking the occupant; looking at meter boxes; or looking for the drill holes, which are often found beneath the window.

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Drilled hole & plugged hole.

Internal insulation – Dry Lining

This is normally applied to solid walls and involves lining the internal face with a damp proof membrane and plaster board. See timber frame – modern on how not to confuse the two.

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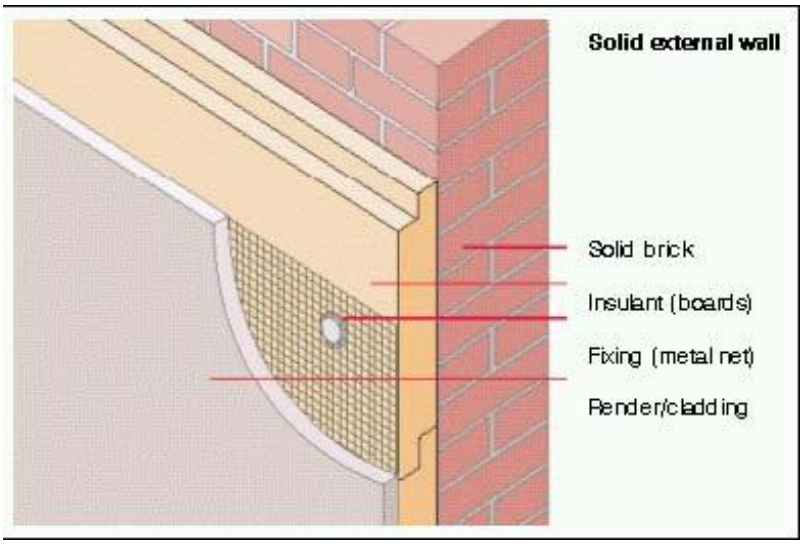
External insulation

When added as post build protection, a “lip” will be created above damp proof course level. Normal render is not recorded as insulation.



Where it can be established that a building element has insulation beyond what would normally be assumed for the age band, this can be indicated if adequate evidence exists. Evidence can be:

- What is observed in the site inspection (e.g. loft insulation, rafter insulation, cavity wall insulation), and/or
- On the basis of documentary evidence.

N.B Acceptable documentary evidence includes certificates, warranties, and guarantees, building regulation submissions and official letters from the applicable Registered Social Landlord (RSL). The assessor must be confident, and able to demonstrate, that any documentation relates to the actual property being assessed and that there is no physical evidence to the contrary.

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Other Data

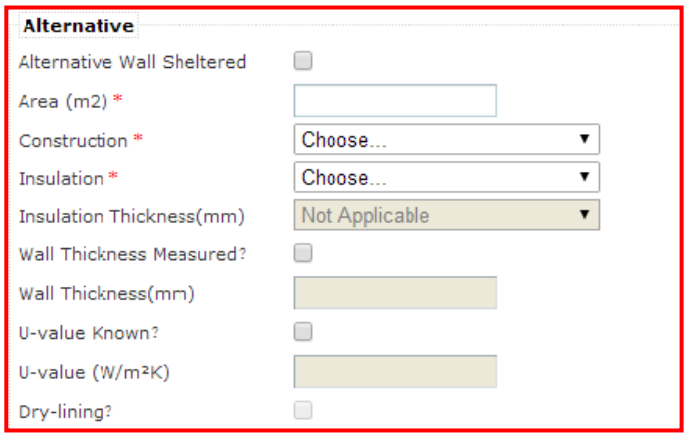
Party wall construction can be determined from accessing the loft.

The above also applies to insulation thickness, when providing photographic evidence it must include the measuring device used. Please see convention 3.07 for further information.

If the U-value is known it may entered. Please follow convention 3.08.

Except for detached properties there must be at least one building part with a party wall. 'Not applicable' applies to a detached property and to building parts of other properties not adjoining a party wall. Construction type can be determined from any of the methods previously mentioned. Unable to determine is to be used when the construction is unknown.

Alternative Wall



Please see convention 2.13 for inclusion and insulation information.

Sheltered wall applies only to a flat or maisonette that is adjacent to an unheated corridor or stairwell. The sheltered wall area is calculated by the software multiplying the shelter length by the storey height and not specified separately.

All other details can be added as any other wall.

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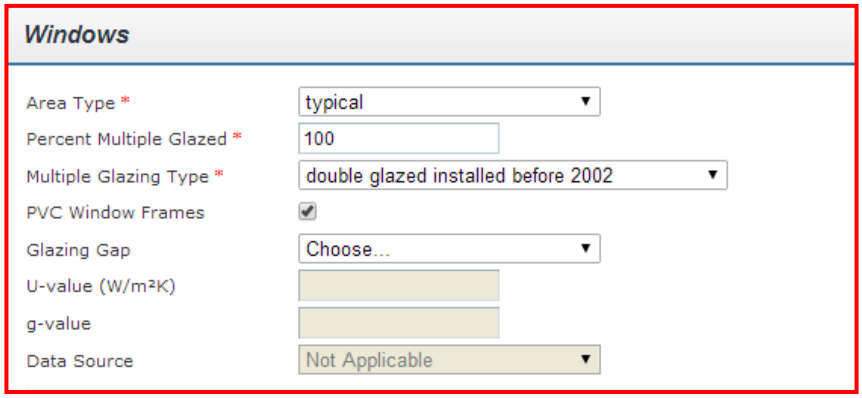
Windows



Please see convention 2.14 and 2.15 for window area type.

When calculating the percent multiple glazed, it is based upon the window area rather than on the number of windows.

When entering multiple glazing type the occupant should provide a FENSA certificate to prove post-2002 retro-fitted double glazing. It is often possible to find the date of a window on the metal spacing strip in the sealed glazed unit. Do not confuse this with the BS Kite Mark dates that appear on the panes themselves. Please see convention 2.16 for secondary glazing information.

When PVC windows and double glazing before 2002 are present the glazing gap must be entered, the assessor must then make a judgement and select one of the dropdown measurements.

If double or triple glazing, data known, is selected the U-value, g-value, and source of this data must all be known.

If much less/greater than typical area type is selected the assessor must fill in the area all the windows of the property. Provided they are the same type of window, and on the same wall, they may be grouped together and the total area entered along with the relevant data.

Double Glazed windows installed before 2002 or with Unknown installation date, the Glazing Gap is required to be entered. This is entered as 6 mm, 12mm or 16mm+. A different U Value is assumed for each glazing gap entered. We will only require photos of the glazing not an actual measurement.

If there is a mixture of glazing gaps, all windows will need to be measured and entered as Much More Than Typical Glazing.

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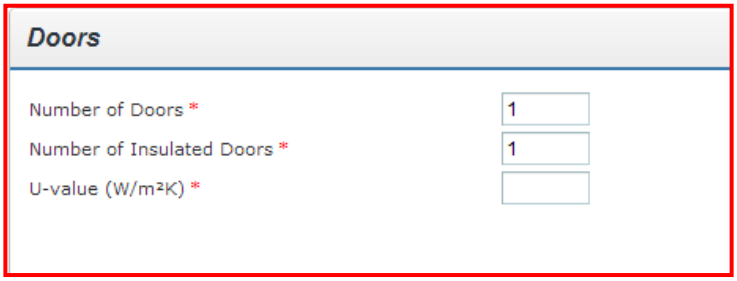
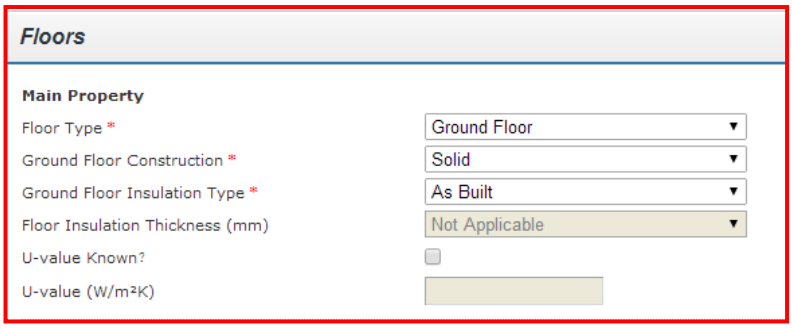
Doors



Only include external doors in the door count, please see convention 3.09 for more information on door inclusion and insulated door.

Floors



Floor Type

Ground Floor: This is selected if the property is: a ground floor flat/maisonette with no basement; a bungalow/house with no basement; a park home; or a bungalow/house/flat/maisonette above a heated basement. In the latter case the heated basement then becomes the ground floor.

Above Unheated Space: When the property has an unheated basement.

To external air: When the area below the property is not occupied by another property. For instance an overhanging flat to a car park or courtyard.

Same dwelling below: See convention 2.11 for extensions.

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Another dwelling below: If the property is on top of another property, for instance a top floor flat/maisonette or a house on top of a converted basement flat.

Ground Floor Construction and Insulation Type

Construction

Unknown (construction & Insulation): Only if conflicting evidence is presented.

Suspended Timber: “Heel Tap” test, hollow and then solid.

Solid: “Heel Tap” test, solid.

Suspended not Timber:”Heel Tap” test, all hollow.

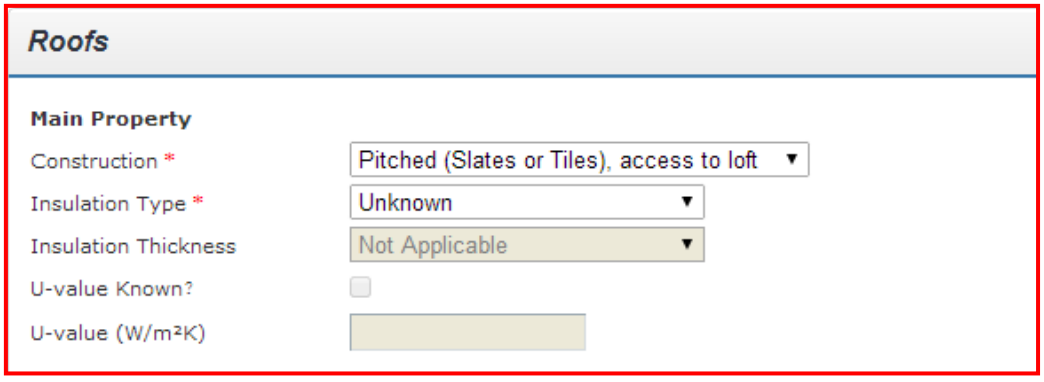
Insulation

As built if insulation cannot be determined and no evidence can be provided.

Retro fitted: Added at a later date, documentary evidence must be provided. Documentation will also provide insulation thickness which must be added.

If the U-value is known & entered it will override the assumptions of the insulation and construction.

Roof



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Construction

Pitched (Slates or Tiles), access/ or no access to loft:

Pitched roof with sloping ceiling

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Pitched (thatch)

Flat roof

Another dwelling above: Applicable for any property or part of a property that has a different property on top of it, or if a dwelling or part of a dwelling has commercial premises above record as another dwelling above.

Same dwelling above: Applicable for extensions within a property that contain another part of the dwelling above.

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Insulation Type

Unknown: Only selected if competing evidence is provided or for no access to loft.

None: Selected if there is no access to loft or if no insulation present.

Sloping ceiling insulation: Insulation in the rafters when no joist is present.

At rafters: Insulation in rafters when a joist, and therefore loft, is present.

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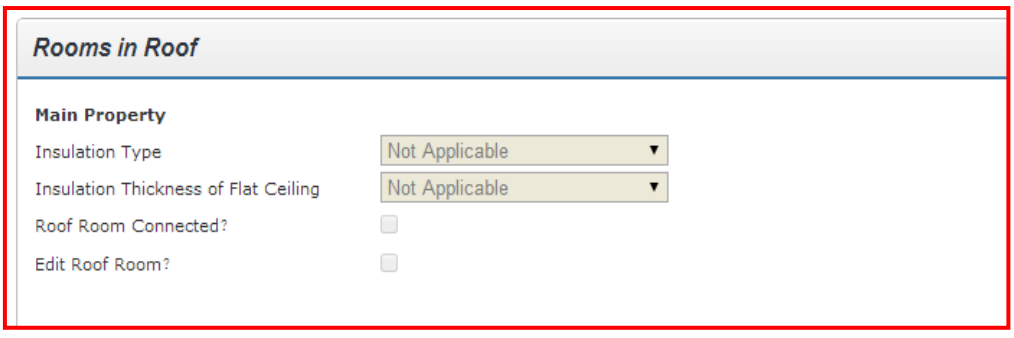
At joist Insulation on loft floor

Insulation Thickness

The assessor must provide evidence in the form of a photo with a measuring device in shot.

Rooms in Roof



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Insulation Type

As built: To be chosen when no access to insulation available.

Unknown: To be chosen when conflicting evidence is presented.

Flat ceiling only: When insulation is present on the ceiling and not the rafters. This should not be confused with the 'Roof' insulation which where a roof room exists is the insulation above the ceiling of the floor below which is outside of the stud walls

None: Must be confirmed visually and photographic evidence must be provided.

All elements (except Flat Ceiling) 50mm: When the other than flat ceiling insulation is present at 50mm. Assessor must provide photographic or documentary evidence.

All elements (except Flat Ceiling) 100mm.

All elements (except Flat Ceiling) 150mm.

All elements insulation thickness unknown.

Non-Separated Conservatory

Enter details as on floor plan. See conventions 2.04, 2.17, and 3.11 for more information.

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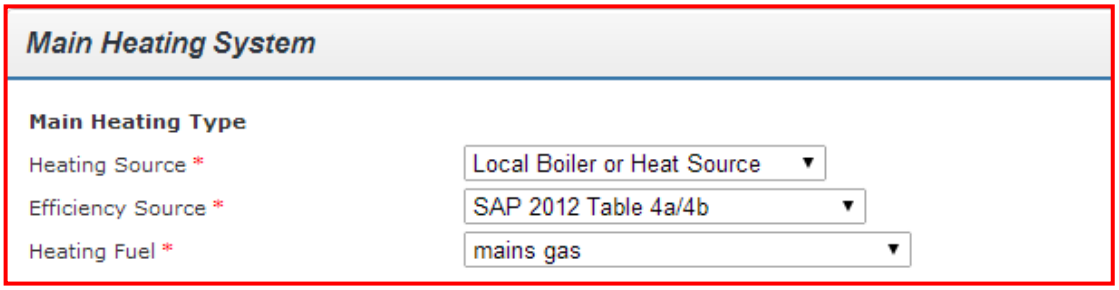
Main Heating System



Heating Source

None: When no heating is present (Will assume portable electric heaters).

Local boiler or heat source: Property is provided heat from a source that only heats that property.

Community heating scheme: When one heating source heats multiple properties.

Efficiency Source

SAP 2012 Table 4a/4b: A generic example of each heating type, chosen from SAP 2012.

Product characteristic database: when the heating model is known it may be selected from the database.

Heating Fuel

The heating fuel is selected here regardless of efficiency source:

Mains Gas: Only available if a mains gas meter or mains gas appliance is present.

Oil: Most common in rural areas. Delivered by tanker and retained in large storage tanks usually sited close to the property.

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Coal: Can be used in solid fuel fires or boilers, open or closed room heaters. Coal fired boilers can be manual or auto-feed.

Anthracite nuts & grains: Naturally occurring high carbon variety of mineral coal.

Manufactured smokeless fuel: Anthracite based briquettes bound together with starch or molasses.

Wood logs, chips, and pellets: Wood in various forms.

Duel fuel mineral appliance: May use any of the above fuel types.

Bottled LPG & LPG subject to special condition 18: Liquid petroleum gas. It is subject to 18 if documentary evidence can be provided that it receives LPG at mains gas rates.

B30K: Bio fuel, bio-liquid/Mineral Fuel Blend Standard.

Heating Type

Boiler: The most common form of central heating uses a central boiler and a network of pipes to distribute heat via water to radiators, can also feed a hot water cylinder.

Emitter: Would usually be radiators however can heat under floors via the network of pipes.

Under Floor heating: Sometimes heating elements may be embodied in the floor and provide heat through the floor

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Electric Dry core Boilers: A large casing of storage bricks with a heat exchanger feeding a wet radiator system. Appear similar to an under-counter fridge. They operate on economy 7. They were very popular in the 70s, rare now.

Electric Direct Acting Boiler: These are much slimmer and smaller than dry core boilers. They are also much more common and use on-peak electricity.

Warm Air: These are very large and would occupy a full height airing cupboard. They are fuelled by gas, oil, or off-peak electricity. Heat is distributed via concealed ducting and released through vents in walls and ceilings.

Combined Primary Storage Unit (CPSU): A single appliance that provides space heating and hot water in which there is a burner that heats a thermal store that must be at least 70 litres. If the store is in a separate casing then it should be classed a boiler with a hot water cylinder.

Heat Pumps: These are categorised by their source (e.g. air, ground, water). If the flow temperature of the water leaving the heat pump is known to be less than or equal to 35C°; then it can be entered as such.

District Community heating: When a community heating scheme is selected, can be separated into: boilers only; combined heat and power, boilers; heat pumps; and community heating network (only one option in database available currently).

Room Heaters: Unless the dwelling is solely heated by room heaters these heat sources are more commonly regarded as secondary systems.

You will come across:

Gas fires: Identified by presence of a gas supply, controls and “real flames.

Electric Fires: Only fixed electric fires should be considered. Free standing, plug-in, or portable heaters do not qualify as space heating.

Solid fuel fires: Use a solid fuel (mineral or wood). Can be open or closed.

Portable Heaters: These are not considered as part of the assessed heating system.

Ceiling Heater: This is entered under other electric heater.

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Storage Heaters: Old style storage heaters are typically very large, deep units containing a large quantity of "bricks" with high thermal mass to store heat. They are usually free standing due to their weight.

Modern heaters are much slimmer than the older units.

Fan assisted storage heaters use fans to extract more heat from the appliance. They can be identified from the fact they need two electrical supplies and grills are often visible on the top and bottom of the heater casing.

Integrated storage + direct acting heaters known as "combi" units they have an off-peak storage heater and a panel convector in the same unit and incorporate automatic on-peak top ups. As with fan assisted, there will be two electrical supplies, one for off peak storage and the other for day time panel heater.

Heating Descriptions

Boiler Types

Conventional boiler: Can be identified by the presence of three pipes: one fuel, one flow (water out) and one return (water back)

Combi boiler: These provide hot water on demand without the use of a hot water storage cylinder. Can be identified by the presence of five pipes: Heating flow (hot water from boiler to radiators), heating return (cooler water from radiator circuit to boiler for reheating), fuel supply, mains water in and hot water out. Can also be identified from: boiler fires when hot water turned on, a pressure gauge on the front of the boiler, no hot water cylinder.

Condensing boiler: The most efficient boiler. It will have four pipes: fuel supply, heating flow, heating return, condensate pipe (plastic)

Condensing combi: This is an amalgamation of the above boilers and has six pipes: fuel supply, heating flow, heating return, mains water in, hot water in and condensate pipe (plastic).

Back boiler: It may be identified by the water pipes entering the appliance or chimney breast, and sometimes by radiators in the property with no separate boiler.
Range cooker boiler: Only recognised in RDSAP when they incorporate a boiler that delivers space heating or space and water heating.

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Fire types

Decorative fuel effect gas fire open to chimney: An open "flame effect" gas fire situated below open chimney. They are 20% efficient.

Flush fitting live fuel effect gas fire (open fronted), sealed to fireplace opening: Still open "flame effect gas fire but are sealed to fireplace opening so provide restrictive controlled flow of ventilation. They are 40% efficient and may be fitted with a back boiler.

Gas fires may be "open" or "closed" fronted. If "open", the fuel bed and combustion gasses are not "sealed" from the room. This type of fire may have a glass panel in front of the fuel bed but this will not be sealed to the front of the fire.

Where the fuel bed and combustion gasses are "sealed" from the room (generally with a sealed glass panel), the fire is described as "closed". Any openings around the glass panel mean the fire is not "closed" fronted.

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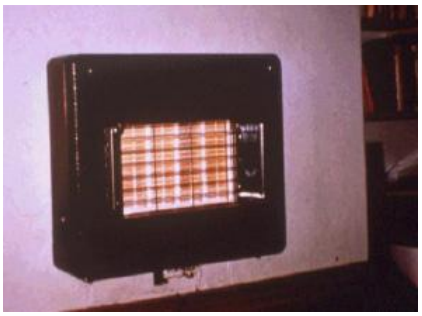
Gas fire, open flue, pre-1980 (open fronted): 50% efficient.



Gas fire or wall heater, balanced flue: 58% efficient.

Gas fire, open flue, 1980 or later (open fronted): 63% efficient.

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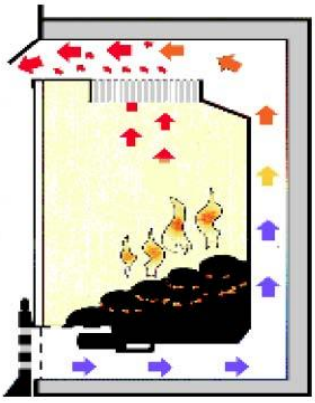
Gas fire, closed fronted, fan assisted: 72% efficient.

Condensing gas fire: Extremely rare 85% efficient.

Flueless gas fires: The heat loss associated with the flue is removed so they are 90% efficient. As no flue required they do not need to be sited on an external wall.



Solid fuel open fire: Traditional hearths and fireplaces open to chimney - they use solid fuel.

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Solid fuel closed fire/room heater: A natural fire, burning solid fuels enclosed behind a glazed door. Usually have an open flue.

Electric room heaters: These can often look like gas fires but do not mimic the flames as well. Difficult to distinguish when switched off but look for electric supply and lack of gas supply (valves, pipes etc). These can also be wall mounted panel convectors, fan convectors and radiant bar fires.

Main Heating System Controls

Control Type * Choose...

Compensating Controller

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Controls

Room thermostat: Measures internal air temperature and turns heating system on and off in relation to set temperature. Programmable thermostats allow heating times and temperature to be set from one unit, they would be entered as room stat and programmer.

Programmer: Often found next to the boiler or hot water cylinder. This is a timer that controls on and off periods for heating and the hot water. The most common system is a programmer with room thermostat.

TRV's: Thermostatic radiator valves control heat locally (on each radiator).

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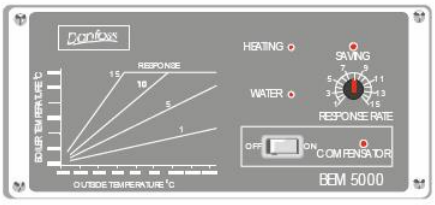
Bypass: A loop of pipe or an open radiator which allows hot water to continue to circulate when all TRV's are closed. Less efficient than a room stat as the boiler is allowed to fire even when heat is not required.

Boiler energy manager: These are used in conjunction with TRV's and control water temperature relative to the external temperature.

An external temperature Sensor



Time and temperature zone control (TTZC): Can be selected by device, or generically by arrangement of plumbing and electrical services. This usually consists of a programmer and a room thermostat in every heated habitable room, or a combined central unit.

Compensating Controller

Similar to TTZC and a boiler manager, these devices control the boiler dependent on the external temperature and control the property zones (heated habitable rooms).

May be selected as a generic weather compensator (most common), or from the ideal or vokera database.

Other

Flue Type	Room Sealed
Fan Assisted Flue	☑
MCS installation of heat pump	☐
Pump age	Not Applicable
Flow temp of heat generator *	Not Applicable
Heat Emitter Type *	Radiators
Electricity Meter Type *	Single
Mains Gas Available	☑
Second Main Heating System Available	☑

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Flue type and fan assisted flue can both be found from: Visual inspection; the boiler manuals; or, if using the product database, from the more details page.

MCS installation of heat pump: This is ticked only if the assessor has access the MCS certificate or a copy.

Pump age: Can be entered as Not Applicable, Unknown, 2012 or earlier or 2013 or later. This is to be entered for all wet central heating systems. Unknown is to be entered if the pump cannot be located.

Flow temp of heat generator: This is the temperature of the water leaving the heating appliance. These can be found in various places: back of the boiler, temperature gauge on the boiler front, the manuals or the MCS certificate for heat pumps.

Heat emitter type: Is either under floor or from radiators.

Electricity meter type

Unknown: If there is no access to the meter.

Single: Standard tariff operates for 24 hours.

Duel: Usually economy 7 or 10 dependent on location and heating appliance. Operates at a reduced tariff for 7 or 10 hours at night.

Duel: (18 hours, Scotland) – Operate at half tariff for 18 hours.

Duel: (24 hours, Scotland) – Very rare.

Mains gas available: Please see convention 8.02.

Please section 4 and 5 of the conventions for information on main and secondary heating systems.

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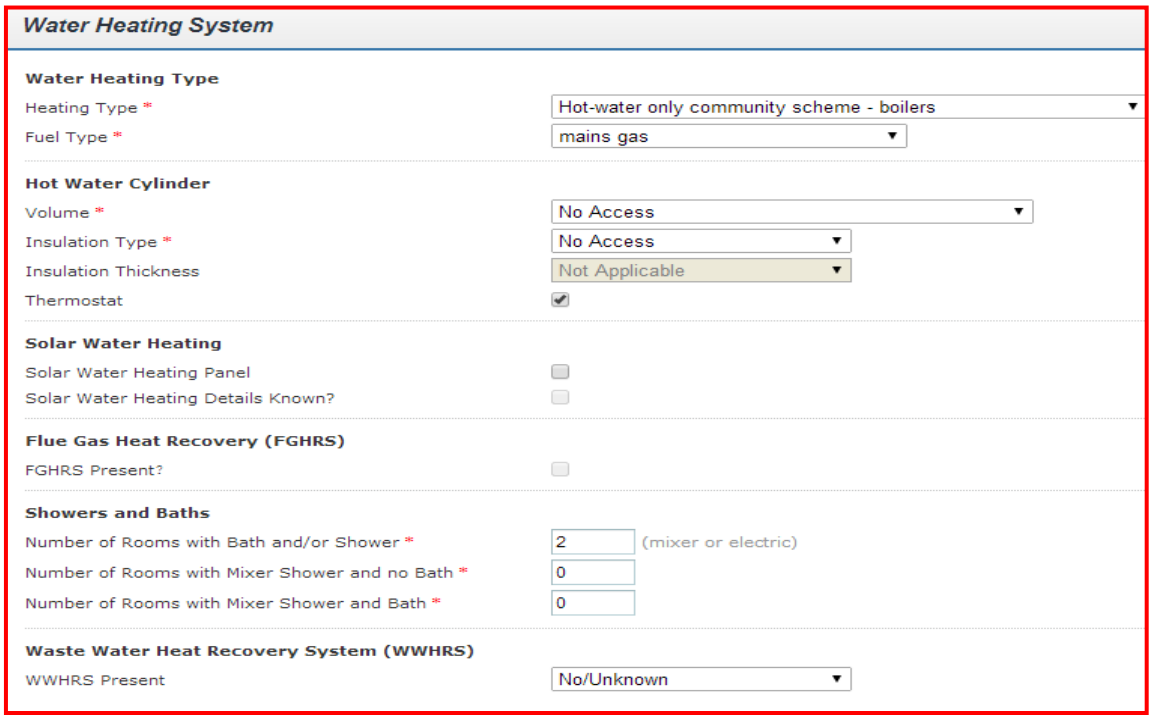
Water Heating System



Heating type and fuel type are entered in much the same way as the main heating system.

For more information on special cases relating to water heating, please see section 6 of the conventions.

Hot Water Cylinder

The table below shows the water capacity for different cylinder sizes.

Cylinder diameter in mm without insulation.

Height in mm without	300	350	375	400	425	450	500	600
600	35	48	55	60	10	77		
750	45	62	70	80	90	98		
825	50	69	78	89	100	110		
900	55	74	87	96	110	120	150	
975	60	83	95	107	120	135	164	
1050	65	90	103	115	130	144	178	257
1200	75	103	118	134	150	166	200	290
1350	85	116	133	152	170	194	234	339
1500	95	130	148	170	190	218	255	370
1800			180	206	230	265	320	450

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- No access is selected when the assessor knows there is a cylinder but is unable to see it or find it.
- None is only selected for combi boilers, as these are the only main heating systems that do not require a cylinder.
- Normal – Up to 130 litres.
- Medium – Between 131 and 170 litres.
- Large – Bigger than 170 litres.
- Actual size included in Solar-Water-Heating-Details is selected when the volume is shown on the MCS certificate provided when solar water heating was installed.

RDSAP

Will assume thermostats for electrical immersion heaters, however they must be entered manually if found on the cylinder.

Solar Water Heating panels

Should be confused with solar PVs, the latter have a grid structure while the former resemble 'velux' roof light. If the owner has kept the MCS certificate then all the details may be entered manually, if not leave the box un-ticked.

Flue gas heat recovery (FGHRS)

Does what it says on the tin and recovers the heat lost from the flue.

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This is a similar system to the waste water heat recovery. The assessor would require documentation to tick this box.

Improvement Measures

Information on improvement measures can be found in appendix V & T of the 2012 SAP document. Further information can be found in section 8 of the RDSAP conventions. If a recommendation is to be removed, it should be done so after clicking 'Calculate' and before 'Create EPC'. Once the recommendation has been selected not to appear in the report, do not click 'Calculate' again as this will re-introduce the recommendation, simply go straight to 'Create EPC'

This page also contains hard to treat cavity wall exceptions and addendums to the EPC. Information on addendums can be found throughout the RDASP conventions. As with removal of recommendations, once the 'Hard to Treat Cavity Walls' or 'Addenda to EPC' has been selected do not click 'Calculate' again, just go straight to 'Create EPC'

Support

If you have any problems or questions please contact us either by:

- Phone – **01225 326 895**
- Email – **Qas@Quidos.co.uk**
- Online Support – **Support.Quidos.co.uk**